

# HEALTH CARE SYSTEMS

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## Summary

The article presents various aspects of modern health care systems. Although for centuries medical care has been considered an important contributor to the health of society, the birth of the World Health Organization has influenced the development of modern national health policies and health care systems to the greatest extent. These last should provide health care to protect and improve the health of the population by health promotion, disease prevention, and diagnostic and therapeutic services. The relationship among various components of national health systems, which to a great extent determines the health service system, is discussed. The importance and implications of the 1977 World Health Assembly resolution “Health-For-All” and the 1978 Declaration of the International Conference on Primary Health Care in Alma Ata for national health systems development placed special emphasis on primary health care and stressed family health services. The mix of various sources of financing of health care systems, which determines the policy and nature of health systems, has a great impact on the equity and accessibility of health care. The limitation of financial resources for health care leads to difficult choices and raises ethical questions. Access to health care reflects consumers’ ability to pay, or a market approach where private financing offers people the opportunity to purchase more or better services, or access to health care as a citizen’s right not influenced by income and wealth, which represents universal or near-universal access to health care for all citizens. As modern health care systems tend to expand, absorbing more resources, cost containment and cost effectiveness are increasingly important goals for all health care systems. To deal with these issues, health care reforms to both the structure of health care financing and the delivery of health services were initiated in a large number of developed and developing countries. While the basic principles of health reform are similar, their application varies with each country, and there are substantial differences in attitude towards health care reforms and expectations between world regions.

In view of the aging of the world population and fact that hospitals wards are not the appropriate setting for long-term care, alternative arrangements are needed. Although there is no single solution to suit all countries, principles that should be taken into account when developing long-term care systems can be envisaged. Also the role of modern hospices, which aim at improving the quality of life remaining for patients with long-term as well as mortal illnesses, and sometimes for the frail elderly, is addressed.

In view of the increasing importance of information in modern society, the significance of systems of information as a valuable commodity for improving the quality of research and the quality and costs of health care delivery is reviewed. Another important issue is preserving and improving the quality of health care in view of growing concerns about health care costs and the introduction of market mechanisms into health care services. Poor quality brings a great burden of harm in terms of lost lives, reduced functioning, and wasted resources.

Recent advances in medical science, especially in molecular sciences and genetics and technology, have markedly improved disease prevention, diagnosis, and therapy. However, there is growing concern about the health benefits and risks of technology, its costs, and social and ethical implications.

## 1. Health Policies and Systems

In every country, there are a number of interconnected systems or sectors, such as education, industry, agriculture, and transport. Their development has been shaped by the country-specific historical, cultural, geographic, and political context. One of these sectors is the health care system. Historically, medical care has been an important contributor to the health of society, helping to cope with disease or injury and in more recent times to prevent disease and promote health. With the rise of free trade and the exchange of goods and services, medical care has become one of many commodities and services sold in the marketplace. However, the development of parliamentary forms of government and growing social demands of the people has resulted in the concept of health care services as a public responsibility. Instead of health care services that can be bought and sold, the idea of providing health care to people based on their needs and in the interest of community welfare has emerged. This has resulted in the development of national health care systems. The different economic, political, and social settings of different countries means that health care systems are naturally very diverse and vary in their structure and function, and in overall complexity.

With the formation of the World Health Organization (WHO), the concept it promoted of health care as a human right has been reshaping world health policy. Its constitution promulgated in 1948 stated that the objective of WHO should be “the attainment by all peoples of the highest possible level of health.” This aim has influenced the formulation of health policies at both international and national levels. Consequently, the dependence of health care on market transactions in the private sector is now widely regarded as leading to social inequities and serious deficiencies in health care systems.

During the first decades of its existence, WHO’s policy was heavily influenced by the biomedical achievements that triggered the hope of eradicating by mass campaigns at least some infectious diseases such as tuberculosis (T.B.), smallpox, malaria, or venereal diseases. However, the failure to eradicate malaria can be seen as the result of too much concentration on technical solutions (use of insecticides) instead of focusing on improving the general environment. The results of the campaign against T.B. show that, to secure success, it is necessary to base a campaign on the national system of health services as an integral part of normal activities. The success of the campaign against smallpox, based on previous WHO experience, resulted from the combined use of validated technology (vaccination) and the full involvement of a national health system, together with international support. These outcomes resulted in the concept of international campaigns against single diseases based on purely technical solutions being replaced by the strategy of international programs integrated with national health service activities. This coincided with rising concern about the effectiveness of WHO country programs.

In the 1970s, the developed countries noticed a rapid increase in cardiovascular diseases and cancer; however, it was thought that advances in biomedical sciences and medical care would soon bring them under control. Yet results were unsatisfactory. It was realized that existing health policies would be unable in the long run to provide an answer to such increasing threats to health. It was realized that many health risks are associated with modern, prosperous lifestyles; increasing threats to health from the

physical and socioeconomic environment in which we live demanded a new approach and a change in policy direction. The result was the widely known “Health for All” (HFA) resolution adopted in 1977 by the Thirtieth World Health Assembly. This resolution stated that the main social targets in the coming decades would be: “the attainment by all citizens of the world by the year 2000 of a level of health that will permit people to live a socially and economically productive life” (Resolution WHA 30.43). This meant that essential health care should be accessible to all individuals and families in a way that was acceptable to all of them, that they could afford, and with their full involvement. It also marked a change from a paradigm of “combating diseases” to one of “promoting health and preventing diseases” as a fundamental requirement for improving the health of the people.

A follow-up event, the international conference on primary health care organized in 1978 in Alma Ata, unanimously adopted a declaration stating that “primary health care is the key to attaining the goals of the ‘Health for All’ policy.” The HFA resolution and the Alma Ata declaration both resulted in the development of national HFA strategies that emphasized equity in health and equal access to health-oriented services, with special emphasis on primary health care and a focus on health promotion, disease prevention, and intersector cooperation.

Decades later, as we enter the twenty-first century, the picture of the globe is steadily changing in all aspects of life: political, economic, social, and cultural. In some countries the health of the people has improved, in others it has worsened, and new obstacles have arisen to challenge health progress. Also, the understanding of health and the health determinants has changed. It is now widely realized that health is influenced by social, economic, environmental, demographic, and epidemiological factors: it is not solely a result of medical interventions. It is clear that people themselves must take a measure of responsibility for their own health. Health is an outcome of the actions of many socioeconomic sectors such as agriculture, education, transport, and employment and not only the health sector; it needs the participation of private and public capital and institutions.

On a world scale, health is facing a variety of new challenges, such as reemerging infectious diseases, epidemics of lifestyle-related diseases, a rapidly aging population, and increasing numbers of disabled persons. Health risks have become transnational; health and health services have become increasingly political issues. This calls for new health alliances with new players. All these have justified a renewal and development of WHO health policy.

The renewed HFA policy concentrates on an improvement of life expectancy and quality of life through reducing the burden of diseases and disabilities and by forward-looking health promotion and, disease prevention. It strongly promotes the equity in access to health that will determine whether HFA can be achieved. The equal concern for women and men reflects the important role women play in the family, in bringing up healthy children, and in society. Finally, it accepts primary health care as a valid concept; it is the basis for the development of comprehensive health service systems.

All these issues have to be tackled by the health care system, the structure of which is

influenced by various national requirements for health care provision and the nature of financing sources, by the growth of knowledge, by technological developments, and by people's different social and health needs. The degree of government intervention has increased almost everywhere, but the ways and details of its application vary greatly. All these factors have influenced all components of health care systems, their complexity, efficiency, and coherence, and determine their characteristics, but the purpose is the same: provision of health services devoted to the protection and improvement of the health of the population by providing a variety of preventive, diagnostic, and therapeutic services. Such systems used to be defined as national health care systems.

WHO defined a health system “as a coherent whole, consisting of many interrelated component parts, both sectoral and intersectoral, as well as the community itself, which produce a combined effect on the health of the population.” However, in spite of this general description a comparison of health care systems is difficult because of the variety of different components and the lack of an international consensus on many definitions. For example, the concept of “hospital” is different in various countries. There is even a lack of any shared definition of a “doctor.” Therefore, any health system model developed to compare health systems internationally has to be simplified to include only those components that are most common in different systems around the world. Bearing this in mind, one can appreciate a practical approach that describes the health care system as an interrelationship of the following components that are present in most health care systems: resources, organization, financing, management, and delivery of health services.

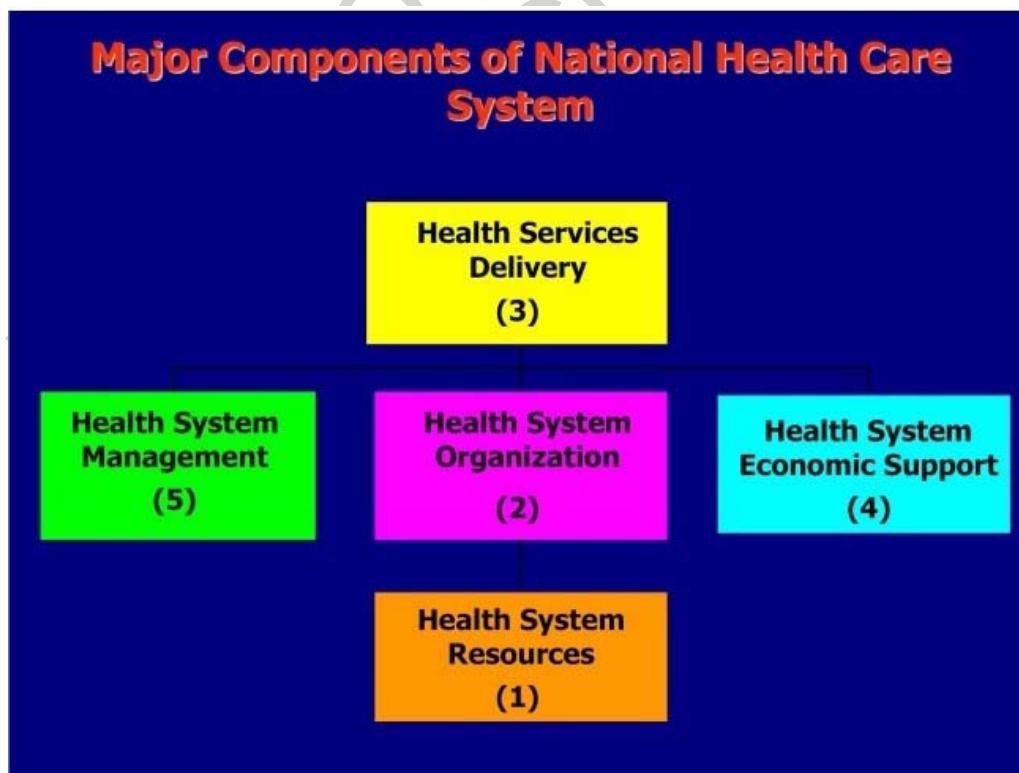


Figure 1. Major components of national health care system

The relationship between the different components shown in Figure 1 defines to a great extent the health service system of different countries. Within each of the component blocks there are many elements or subsystems that describe the health system realities in different countries.

**Health system resources** include many types of human resources, health facilities, and health commodities essential for the provision of health services. This component requires inputs from various other sectors such as education, construction, and manufacturing. Human health resources include physicians, nurses, and a variety of other personnel. Their training, functions, geographic distribution, quality of performance, and regulation differ widely, substantially influencing the effectiveness of the health service system. Health facilities include many types of general and special hospitals for different types of illnesses. In recent decades, facilities for the provision of ambulatory care—health centers, polyclinics, health posts—have been of growing importance. Health commodities include the spectrum of pharmaceuticals, laboratory reagents, and diagnostic, therapeutic, and rehabilitation equipment.

**Health system organization** is an important component of health service systems and may be governmental, voluntary non-profit, or entrepreneurial; the proportions between these determine the general nature of a health service system. Organized preventive health services are always a responsibility of the ministry of health. In most countries other government agencies are responsible for social insurance programs that finance medical care. Nongovernmental and non-profit, often charitable, organizations in most countries develop and operate health programs to tackle certain diseases (such as T.B. or cancer) or serve certain groups of the population (such as children or the aged). Numerous other ministries may have responsibility for other aspects of the health service system.

**Health system economic support:** The financing of a health service system has various institutional sources but ultimately the citizens of each country have to pay the cost of health care, whether through public or private channels. General taxation is an important source of the development of health services in every nation. These funds are used for general prevention and for medical treatment of at least part of the population. Mandatory or social insurance is a special form of government taxation in which funds are earmarked for a specified purpose—such as medical care—and they are used for the benefit of only the persons contributing to the insurance fund and, usually, their families. In a growing number of countries, nongovernment or voluntary health insurance is another important source. Donations of labor as well as money to charity or foreign aid are supplementary sources of economic support. The proportions of sources of economic support influence the policies and characteristics of entire health systems and have major implications for health care equity.

**Health system management** includes planning, administration, regulation, and evaluation. Regulation is usually governmental; it includes various legal and non-legal forms intended to ensure that health system activities—public, private, and market-oriented—are in accordance with certain standards.

**Health services delivery** can be defined as those activities aiming at improving health,

relieving symptoms, or supplying comfort through services including advice, preventive measures, early diagnosis, treatment, or care given to an individual or a community. This term refers to a wide array of services that affect health, including physical and mental illnesses. It includes services aimed at preventing disease and promoting health and providing acute, long-term, rehabilitative, and palliative care. The definition applies to many types of health care practitioners (e.g. physicians, nurses, and various other health care professionals) and to all settings of care from hospitals and nursing homes to physicians' offices, community sites, and even private homes. The extent of relationships between and among primary, secondary, and tertiary care, and regionalization will also vary in different systems. Health care may be provided by patients themselves, by members of their families, by primary care teams, by specialists, and finally by hospitals. Health care is thus concerned not only with curing disease, but also with providing care and compassion.

## **2. Primary Health Care**

The term “primary health care” was widely accepted after the Alma Ata Conference in 1978, replacing the terms previously used: local health services and basic health services. It combines preventive, promotional, and medical care services and, according to Dr. Halfdan Mahler, the former Director-General of WHO, “should fit the life patterns of the community it serves and should meet community needs and demands.”

Primary health care (PHC) represents more than 70% of all organized health care. It is here that most primary prevention (e.g. immunization) and secondary prevention (e.g. health screening) takes place. It is here also that patient education (health maintenance, nutrition, prevention of diseases, sanitation, etc.) is most efficient. It is also at this level that most patients make their first contact with the health system and simple medical conditions are diagnosed and treated. PHC has been termed the “gate or entrance door” to regional and hierarchical health care systems. To meet the broad objectives of PHC, it is necessary to develop a team approach. Teamwork must be an active process with common objectives shared by the team.

PHC is dispensed in various ways: by individual health practitioners, by systems of ambulatory care, including “health centers,” and by independent outpatient departments, polyclinics, and group practices.

In some countries individual health practitioners still flourish. This form of practice is gradually changing as various types of group practices develop, although the specific role of individual health practitioners remains undiminished. However, the trend is perhaps to what is called in some countries health centers, and in others a kind of “polyclinic.” The health center and the polyclinic provide both medical treatment and preventive services. These include promotion of health, prevention, early diagnosis, and all those aspects of medical care that can be carried out on an ambulatory basis. This is the only way to reconcile the permanent availability of medical care, quality, and the use of modern equipment. No patients should be referred to the higher level of a health services pyramid without their needs first being identified at the PHC level.

Accessible health centers should be capable of responding adequately to local health

problems and priorities, and of cooperating with other sectors—educational, environmental, industrial, housing—and institutions in the public, private, and nongovernment sectors. This includes providing a competent medical service and carrying out a range of preventive activities such as immunizations, antenatal care, and family planning. The multidisciplinary health center team with complementary skills enables a holistic approach that promotes individual and family health care and health development.

PHC can also be delivered by hospital outpatient clinics and emergency services, and by public health services (maternal and child health, family planning, communicable disease control and treatment, and other special clinics and services). Hospitals can play a direct role in PHC, especially in dense urban settings. This implies that hospitals actually provide polyclinics, rehabilitation, and other services needed for ambulatory care. Such a hospital-based health care system that would cover all needs in one place is one approach.

Self-care or self-delivered health care is equally important in developing and industrialized countries although, in the latter, often in more “sophisticated” forms, such as self-diagnosis and self-medication. It is important to integrate it with organized, usually state-supported, PHC. Self-care and community care can be expected to assume an increasingly important role. In order to improve its quality and extent within the population, it must be carefully evaluated and appropriate health education and information must be given both to individuals and to communities.

Unfortunately, in most countries there is a separation between the health and social services. The integration of the social welfare and health services of a community under one roof would permit all problems, whether concerning children, elderly people, or people of working age, to be discussed in one place and resolved. This type of community service would provide individuals in society with better contact possibilities than is possible under the present system where health care and welfare services are often separated.

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### Biographical Sketch

**Dr. Andrzej Wojtczak**, professor of medicine and public health, graduated from Poznan Medical School in Poland. His clinical specialties are internal medicine, nephrology, and public health and social medicine. He trained at the University of Pennsylvania as a Rockefeller Foundation fellow and then as a visiting scientist. For eight years, he served as director in the regional office of WHO in Copenhagen, in charge of health policy and systems, research and human resources. He also coordinated cooperation of the WHO European Office with the Association of Medical Education in Europe, the Association of Medical Deans in Europe, and the Association of Schools of Public Health in Europe. In Poland, he served also as the deputy minister of health and the dean of the School of Public Health and Social Medicine in Warsaw. Subsequently, he established and operated the WHO Research Center for Health Development in Kobe, Japan. Dr. Wojtczak is also visiting professor at Kwansei Gakuin University in the School of Policy Studies in Kobe, Sanda, Japan.

Dr. Wojtczak is currently director of the Institute for International Medical Education established in New York in 1999. He is the author of over 300 publications in the fields of medicine, medical education, and public health, and editor of a three-volume textbook on internal medicine.